



# **A pluralistic and multidisciplinary approach to post-accidental management : the CODIRPA French program**

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**ASN**

1. The CODIRPA works
2. The French doctrine : objectives, principles and key points
3. The main protective actions for the post-accidental phase
4. CODIRPA development (new tasks)



## The CODIRPA works (2005-2012)

The CODIRPA was implemented from 2005 to establish the framework, define, prepare and implement the steps necessary to deal with a post-accident situation

### CODIRPA Composition

National and local administrations, expert bodies, operators

Non-institutional members: NGOs, local elected people, professional unions, experts and consultants

Foreign radiation protection authorities (Germany, Switzerland, Luxemburg)

### Thematic working groups (technical reports and recommendations)

Drinkable water, foodstuffs, radioactivity measurements, health monitoring, remediation, waste management, protection of workers, compensation, regulations, organization of public authorities, information, radiation protection culture

Two “transversal commissions” (transition and long term)

Test of the doctrine at local level (3 NPP sites and one local community)

Almost 300 associated experts involved (institutional and civil society)

## The CODIRPA works (2005-2012)

### Transparency of the projects ([www.asn.fr](http://www.asn.fr))

- Belarus feedback experience from the Chernobyl disaster (PAREX, 2004) served as the founding basis for the French doctrine
- The 12 reports of the thematic groups
- The draft guide for the termination of the emergency phase, subject to testing (2010)

### International outreach

- 2 international seminars in Paris (Dec. 2007 and May 2011)

### A doctrine grouping together

- Main document (15 pages) : objectives, principles, key actions and strategic orientations for the transition and long term phases
- Annex 1 : The first actions to be put in place at the end of the emergency phase
- Annex 2 : The guidelines for managing transition period (few months)
- Annex 3 : The guidelines for managing long-term period (several years)

### Validation in 2012 by CODIRPA followed by publication



## The CODIRPA works (2005-2012)

The CODIRPA has experimented with different forms of stakeholder involvement according to different objectives :

### Direct involvement of stakeholders in the CODIRPA “historical” WGs

To elaborate the first elements of the PA doctrine together with non institutional representatives in order to take into account their viewpoints, from the beginning

### Local consultations of the civil society through several public debates and meetings, organized by local NGOs

- to gather criticisms, comments and proposals
- to make the doctrine more understandable (building a common language) and more operational (adaptation to local constraints and professional domains)
- to facilitate the diffusion and appropriation of the doctrine

### Declination of the elements for the post-accidental management at the local level

- to customize the doctrine according to local realities and stakes
- to early engage the potential stakeholders in preparedness

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## The CODIRPA doctrine : Objectives, principles and key points

### 3 fundamental objectives (strongly connected)

- protecting the population against the dangers of ionising radiations
- providing support for members of the population who have suffered the consequences of an accident
- preparing the social and economic recovery of the affected areas

### 4 principles (very closed to ICRP 103 and 111)

- Principle 1 : Anticipation → issues relating to nuclear post-accident management must be taken into account immediately once the emergency phase is over, consequently the first actions for the protection of the population must be planned in advance.
- Principle 2 : Justification
- Principle 3 : Optimisation
- Principle 4 : Co-construction and transparency → the management of post-accidental situation must involved the population, the elected people, the social economic and “communication” actors ; transparency of information is a corollary.

## The CODIRPA doctrine : Objectives, principles and key points

### 6 Key points

- Immediate delineation of a PA zoning for the contaminated area, with an evolution during the transition period
- Those affected by the consequences of the accident should benefit from medical and psychological care, radiation monitoring, financial support, and compensation for those affected by the consequences of the accident
- The permanent radiological characterisation of the environment, foodstuffs and drinking water
- The rapid implementation of a specific approach to management of drinking water
- The emergence of new forms of governance based on the vigilance and active participation of the population concerned a key point for economic recovery within affected areas
- Sustainable waste management solutions in response to the rapid increase of diverse contaminated waste



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## The main protective actions for the post-accidental phase

### Public protection area (ZPP)

Actions are needed to reduce population exposure

food bans, radiological measurements, health surveillance, decontamination actions and specific waste management

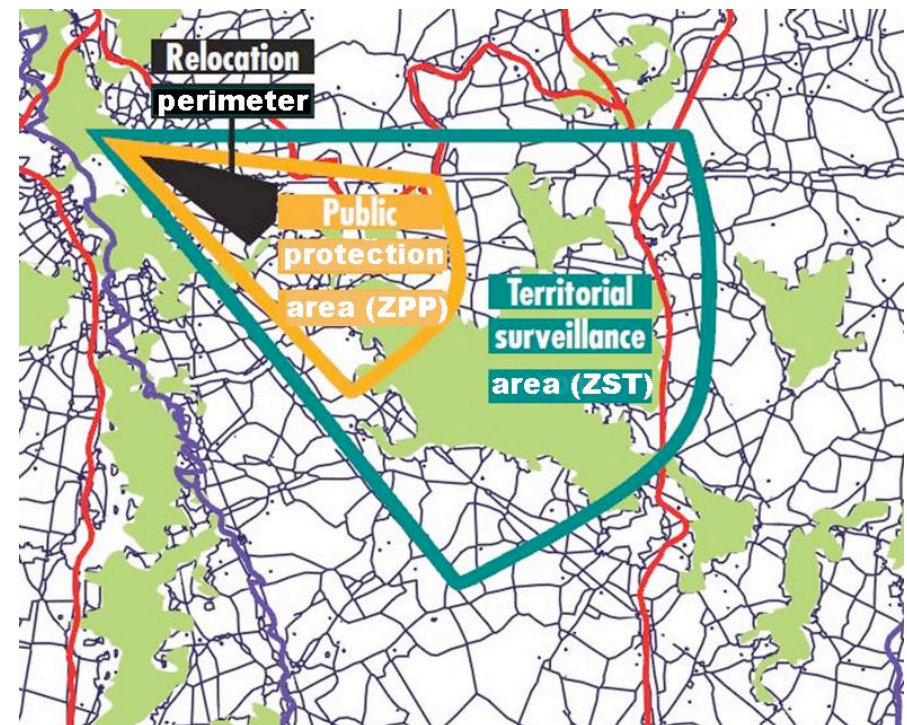
### Guide value based on dose criteria

Effective dose (external + ingestion)  $> 10$  mSv / 1<sup>st</sup> month or

Thyroid equivalent dose  $> 50$  mSv / 1<sup>st</sup> month

May include a Relocation perimeter

If effective dose from external exposure alone  $> 10$  mSv/ 1st month



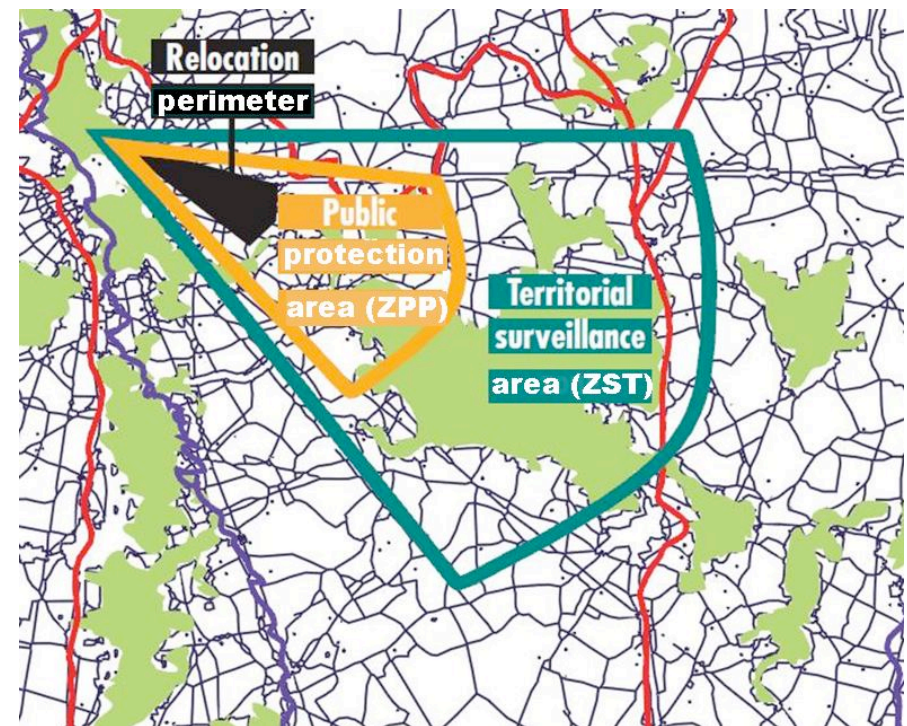
## The main protective actions for the post-accidental phase

### Territorial surveillance area (ZST)

Contamination levels of locally produced foodstuffs > Maximum Permitted Levels (Council regulation Euratom n° 3954/87)

Food bans based on an assessment of contamination levels of foodstuffs considered as the most sensitive to radioactive contamination (eg. milk, salads)

The extent of this area is however likely to decrease during the firsts months of post-accidental phase (decay of radioactive iodine, measurements results)





## The main protective actions for the post-accidental phase

Immediate delineation of a PA zoning for the contaminated area provides the structural framework

### For initial protection measures

- To decide about the long term evacuation and relocation (after sheltering during the early phase)
- To organize food bans of locally produced food and feedstuffs
- To engage the first clean-up operations within urban areas

### For the organization of medical and psychological care, human radiation monitoring, financial support and compensation

- Opening information centres for the affected populations

### For the radiological characterisation of

- The environment, foodstuffs and drinking water
- Wastes and manufactured products

As well as preparing the economic recovery of contaminated areas in transition period

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## CODIRPA development : new tasks

To regularly analyze feedback experience from

- Chernobyl accident (long term)
- Fukushima accident (long time release, transition period)

To engage preparedness works at local and national levels

- preparedness of the PA preliminary actions on each NPP sites (“co-construction and transparency” principle with stakeholders)
- elaboration of “road maps” for ministries (Civil security, Public Health, Agriculture, Environment, Industry, Economy, Education...)

To further develop certain topics :

- management of low contaminated foodstuffs and manufactured goods
- cost of the management of a PA situation
- the gradual commitment of stakeholders in an real situation
- the contamination of water resources, of the sea
- the radiation protection culture at school

To transfer the doctrine to all those involved, in particular economic players, elected people and opinion leaders

- experimental projects

To exchange with neighboring countries and international organizations (HERCA, AIEA, WHO, NEA...)